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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/025,230	12/19/2001	Robert P. Carlstedt	60,130-1027/01MRA0149	7385
26096	7590	12/09/2003		
CARLSON, GASKEY & OLDS, P.C. 400 WEST MAPLE ROAD SUITE 350 BIRMINGHAM, MI 48009				
EXAMINER SPISICH, GEORGE D				
ART UNIT		PAPER NUMBER		
3616				

DATE MAILED: 12/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/025,230

Applicant(s)

CARLSTEDT ET AL.

Examiner

George D. Spisich

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-11 is/are allowed.
- 6) ☒ Claim(s) 12-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to: .
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

DETAILED ACTION

Drawings

The Drawing corrections filed September 15, 2003 have been approved.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 12, 14 and 16-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Goldberg et al. (USPN 4,371,191) provided in Applicant's IDS.

Goldberg et al. (as shown in Figure 12) disclose a suspension assembly and the method of adjusting the vehicle suspension assembly comprising the steps of providing a mechanical input from a steering wheel to spaced apart wheels (this arrangement is shown in Figure 6) and turning the wheels in response to the mechanical input, detecting vehicle ride conditions, one of which a steering wheel position sensor (S2) and manipulating first, second and third actuators in response to the vehicle ride

conditions and adjusting the attitude of the wheels with the actuators to a desired position. In Figure 12, there is a top view showing the first and second actuators. In col. 15, lines 63-68, there is disclosed that the lower control arm arrangement may also be actuators, which would be the third (and fourth) actuator.

Goldberg et al. disclose a sensor (shown in Figure 6) detecting ride conditions and a controller connected to the sensor and the actuators commanding the actuators to adjust the caster, camber, toe and/or track in response to the vehicle ride conditions to achieve a desired position.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldberg et al. (USPN 4,371,191) in view of Mackle et al. (USPN 6,347,802).

Goldberg et al. has been discussed in the previous rejection. However, Goldberg et al. does not disclose the vehicle condition sensors to specifically sense yaw or include a braking sensor. Goldberg et al. does disclose the sensing of the wheel heights to detect the dynamic forces and therefore the relation of the vehicle body

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during driving. It could then be considered that these sensors detect vehicle yaw to be used to adjust the wheel geometry accordingly.

Mackle et al. (USPN 6,347,802) disclose vehicle suspension arrangement having an actuator to adjust the wheel geometry based on sensed vehicle conditions. Mackle et al. disclose the vehicle conditions to include yaw rate (in col. 2, line 48) and a brake signal (in col. 3, line 12).

It would have been obvious to one of ordinary skill in the art at the time the invention was made for Goldberg et al. to further monitor and sense the vehicle yaw rate, and the vehicle anti-lock brake system as taught by Mackle et al. and interrelate this vehicle ride condition with the adjustment of the camber, caster, toe and/or track so as to achieve enhanced dynamic vehicle suspension performance.

Response to Arguments

Applicant's arguments with respect to claims 1-19 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

Claims 1-11 are allowed.

Prior Art does not show an adjustable vehicle suspension assembly having first and second actuator supported on a control arm and converging to a connection of the steering knuckle.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. A. Cigan et al. (USPN 2,678,830) shows an adjustable geometry suspension with first and second actuators having a ball joint connection to the steering wheel knuckle.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George D. Spisich whose telephone number is (703) 305-6495. The examiner can normally be reached on Monday to Friday 6:00-3:30 except alternate Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on (703) 308-2089. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9326.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-1113.

Gds *[Signature]*
November 29, 2003

[Signature] 12/1/03
PAUL N. DICKSON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600